DERWENT-ACC-NO: 1997-433772 DERWENT-WEEK: 199740 COPYRIGHT 1999 DERWENT INFORMATION LTD

TITLE: Manufacture of electric heater - comprises stacking layers of conducting and insulating materials of specified compositions, fixing and applying insulating layer with binder

INVENTOR: CHEVORDAEV, V M

PATENT-ASSIGNEE: CHEVORDAEV V M [CHEVI]

PRIORITY-DATA: 1994RU-0027440 (July 19, 1994)

PATENT-FAMILY:

 PUB-NO
 PUB-DATE
 LANGUAGE
 PAGES
 MAIN-IPC

 RU 2074521 C1
 February 27, 1997
 N/A
 006
 H05B 003/28

APPLICATION-DATA:

PUB-NO APPL-DESCRIPTOR APPL-NO APPL-DATE RU 2074521C1 N/A 1994RU-0027440 July 19, 1994

INT-CL_(IPC): H05B003/28

ABSTRACTED-PUB-NO: RU 2074521C

BASIC-ABSTRACT:

An electric heater comprises: (i) a layer of insulating material made of fibreglass fabric 100-300 parts by weight (pts.wt.), 100 pts.wt. of liquid glass with hardening agent, 3.5-10.0 pts.wt. of zinc oxide and a filter, i.e. aluminium oxide 50-150 pts.wt.; and (ii) conducting materials made of copper threads or a conducting composite consisting of 100 pts.wt. of liquid glass, 3.5-10.0 pts.wt. of hardening agent and 50-150 pts.wt. of filler, 5-20 pts.wt. graphite and 0.1-5.0 pts.wt. carbon fibre, enclosed by the insulating materials. The components are added in turn to the liquid glass and are mixed for 3-20 minutes depending on the amount, the hardening agents are added directly after use and are mixed for 3-5 minutes, while the binder is applied onto the fibreglass fabric by a spatula to a thickness of 0.1-0.5 mm. The heating element in the form of a paste is manufactured using the same technology and is applied onto 1 of the layers of fibreglass fabric in the centre of the heating plate. 3-5 layers of fibreglass fabric are used. If copper threads are used they are applied depending on the power and dimensions of the heater.

Manufacture of electric heater

Forming of non-fuel, decorative, non-toxic heater

CHOSEN-DRAWING: Dwg.1.2

DERWENT-CLASS: L03 X25

CPI-CODES: L03-A; L03-A01B; L03-H04A;

EPI-CODES: X25-B01C:

DERWENT-ACC-NO: 1997-311643 DERWENT-WEEK: 199729 COPYRIGHT 1999 DERWENT INFORMATION LTD

TITLE: Two-layer <u>friction</u> bearing material - has base layer, e.g. of metal, and <u>friction</u> layer consisting of polyamide matrix with 3-40 volume⁶ • PTFE

INVENTOR: DEINERT, J

PATENT-ASSIGNEE: GLYCO-METALL-WERKE GLYCO & CO BV [GLYC]

PRIORITY-DATA: 1995DE-1045425 (December 6, 1995)

PATENT-FAMILY:

 PUB-NO
 PUB-DATE
 LANGUAGE
 PAGES
 MAIN-IPC

 DE 19545425 A1
 June 12, 1997
 N A
 006
 F16C 033.20

APPLICATION-DATA:

PUB-NO APPL-DESCRIPTOR APPL-NO APPL-DATE DE19545425A1 N A 1995DE-1045425 December 6, 1995

INT-CL_(IPC): F16C033 20 ABSTRACTED-PUB-NO: DE19545425A

BASIC-ABSTRACT:

A two-layer <u>friction</u> bearing material (I) comprises (A) a plastic <u>friction</u> layer (1) with a polyamide matrix containing 3-40 vol.% PTFE; and (B) a base material

Also claimed are processes for the production of (I).

Preferably layer (1) consists of a polyamide (PA) 11 or 12 matrix with 10-20 vol. ° o PTFE and no lead, optionally modified with additives such as calcium carbonate, mica, polyethylene, wax, mineral oil, synthetic oil, calcium fluoride, molybdenum sulphide, graphite, bronze powder and/or fibres, preferably with a total additive concentration of 2-40 wt° o. Base (B) (material 2) consists of (B1) metal, preferably sub-eutectoid steel such as DIN 1624 steel, Grade St3 or St4, with a 10-25 mu protective layer (3) of PA 11 or PA 12 on the side opposite layer (1), or (B2) bronze, brass, aluminium or a not very reactive copper alloy, or (B3) a woven fabric (5), preferably made of carbon, glass, aramid or metal fibres.

USE - For the production of flange sleeves (claimed).

ADVANTAGE - A low-cost, temperature- and corrosion-resistant bearing material with better dry-running properties than prior-art materials, especially 3-layer composites. The high concentration of PTFE makes it possible to avoid the use of lead.

CHOSEN-DRAWING: Dwg.1/4

DERWENT-CLASS: A14 A23 A88 Q62

CPI-CODES: A04-E08B; A05-F01E2; A07-A04E; A09-A05; A12-H10;

L Number	Hits	Search Text	DB	Time stamp
-	3	"6001440"	USPAT;	2002/05/24 15:16
			US-PGPUB,	
			ЕРО, ЛРО,	
4	,		DERWENT;	
v. Î			IBM_TDB	
1	1399	(gradient gradual\$4) near8 heat near8 conduct\$7	USPĀT;	2002/05/22 12:08
•	1377	(gradient graduary) neuro neuro conducto.	US-PGPUB:	
			EPO; JPO;	
1				0
ī.			DERWENT:	
	-		IBM_TDB	. 2002/05/22 12:05
	8	gradient near8 concentration near8 heat near8 conduct\$7	USPAT;	2002/05/22 12:07
			US-PGPUB;	
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_	1	"4784893" and gradient	USPĀT;	2002/01/23 19:32 +
	·		US-PGPUB.	
*			ЕРО; ЈРО;	
			DERWENT;	
			IBM TDB	
	2026	1. (0 (1 1041 () 0 1 407	_	- 2002/01/24 00:42
-	2036	gradient near8 (thermal\$4 heat) near8 conduct\$7	USPAT;	2002/01/24 09:43
			US-PGPUB:	
			ЕРО; ЛРО;	1
1			DERWENT;	
			IBM_TDB	
-	209	(gradient near8 (thermal\$4 heat) near8 conduct\$7) and friction\$4	USPAT;	1 2002/01/24 09:36
			US-PGPUB;	
7			EPO, JPO,	1
1			DERWENT;	
i			IBM_TDB	
1	2	("4700003" "1944310" "5959511") pp	USPAT;	2002/01/24 09:37
-	3	("4700823" "1844218" "5858511").pn.	i .	2002/01/24 07.57
: 1		4 1	US-PGPUB	2002/01/24 00:21
-	17	(gradient near8 (thermal\$4 heat) near8 conduct\$7) same friction\$4	USPAT;	2002/01/24 09:34
			US-PGPUB;	*
×			ЕРО, ЈРО,	
Ť			DERWENT;	
Í			IBM_TDB	į
, -	78	(gradient near8 (thermal\$4 heat) near8 conduct\$7) near8 (concentration	USPAT;	2002/01/24 09:39
		density)	US-PGPUB;	
i			EPO; JPO;	1
			DERWENT,	
-			IBM TDB	
	10	((gradient near8 (thermal\$4 heat) near8 conduct\$7) near8 (concentration	USPAT.	2002/01/24 09:37
	10	density)) and friction\$4	US-PGPUB:	
i		density)) and metionar	EPO, JPO,	· i.
Î	1		DERWENT;	T
1				
i.			IBM_TDB	1 2002/01/24 00:27
-	3	("4700823" "4844218" "5858511").pn.	USPAT,	2002/01/24 09:37
			US-PGPUB	
-	19	(gradient near8 (thermal\$4 heat) near8 conduct\$7) near8 concentration	USPAT;	2002/01/24 09:39
			US-PGPUB;	•
	0		EPO; JPO;	. 9
	4		DERWENT,	
			IBM_TDB	
-	19	gradient near8 (thermal\$4 heat) near8 (conduct\$7 disspat\$5) near8	USPAT.	2002/01/24 09:46 ¹
	19	concentration	US-PGPUB:	1 = 302.31.21 02.10
		Concentration	EPO; JPO;	
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			DERWENT:	
			_IBM_TDB	

÷	0	(gradient near8 (thermal\$4 heat) near8 (conduct\$7 disspat\$5) near8 concentration) not ((gradient near8 (thermal\$4 heat) near8 conduct\$7)	USPAT, US-PGPUB,	2002/01/24 09:46
		near8 concentration)	EPO; JPO; DERWENT; IBM_TDB	
-	4	"1374710"	USPAT; US-PGPUB;	2002/05/22 11:59
			EPO; JPO; DERWENT; IBM_TDB	
-	0	(gradient gradually varying) near8 concentration near8 heat near8 conduct\$7 near8 fib\$1r\$4	USPAT; US-PGPUB; EPO; JPO;	2002/05/22 12:11
		· ·	DERWENT, IBM_TDB	
-	3	((gradient gradually varying) near8 concentration) same (heat near4 conduct\$7 near4 (fib\$1r\$4 element))	USPAT; US-PGPUB; EPO; JPO;	2002/05/22 12:15
			DERWENT; IBM_TDB	: 2002/05/22 12:25
-	26	((gradient gradually gradation varying) near8 concentration) and (friction near6 (material lining)) and (heat near4 conduct\$7)	USPAT; US-PGPUB; EPO; JPO;	2002/05/22 12:25
i i			DERWENT: IBM_TDB	
-	11	((gradient gradually gradation varying) near8 concentration) and (friction near8 heat near8 (transfer\$5 conduct\$7))	USPAT; US-PGPUB; EPO; JPO;	2002/05/22 12:28
	67	((gradient gradually gradation varying) near8 (ratio rate density	DERWENT, IBM_TDB USPAT,	2002/05/22 12:55
		concentration)) and (friction near8 heat near8 (transfer\$5 conduct\$7))	US-PGPUB; EPO; JPO; DERWENT;	
-	0	"4784893" and friction\$4	IBM_TDB USPAT; US-PGPUB; EPO; JPO;	2002/05/22 12:47
	24400		DERWENT; IBM_TDB USPAT;	2002/05/22 12:49
- 	24400	(friction near4 (lining material)).ab.	US-PGPUB; EPO; JPO;	2002/03/22 12 49
-	268	(friction near4 (lining material)) and (fib\$1r\$6 same conduct\$6 same	DERWENT; IBM_TDB USPAT; US-PGPUB;	2002/05/22 12:54
		heat)	EPO; JPO; DERWENT;	
-	77	(friction near4 (lining material)) same (fib\$1r\$6 same conduct\$6 same heat)	IBM_TDB USPAT; US-PGPUB;	2002/05/22 12:56
ı		and the second s	EPO, JPO; DERWENT; IBM_TDB	2002/05/22 12:05
-	4577	((gradient gradually gradation varying direction orient\$7) near8 (fiber fibre)) and (heat near8 (transfer\$5 conduct\$7))	USPAT; US-PGPUB; EPO; JPO; DERWENT;	2002/05/22 13:05
		: 	IBM_TDB	. 9 ::

F=				Luchar	2002/05/22 12/05
į -	:	782	((gradient gradually gradation varying direction orient\$7) near8 (fiber	USPAT; US-PGPUB,	2002/05/22 13:05
1	1		fibre)) same (heat near8 (transfer\$5 conduct\$7))	EPO; JPO;	
ļ	÷			DERWENT;	
Î				IBM_TDB	
			Visit and built and deline transition of a direction or ant \$7) come	USPAT;	2002/05/22 14:33
-		66	(gradient gradually gradation varying) same (direction orient\$7) same	US-PGPUB;	2002/05/22 14.55
			(fiber fibre) same (heat near8 (transfer\$5 conduct\$7))	EPO, JPO,	
				DERWENT;	
				IBM_TDB	1
		114	(gradient gradually gradation varying) same (concentration amount	USPAT;	: 2002/05/22 16:01
*		114	density) same (fiber fibre) same (heat near8 (transfer\$5 conduct\$7))	US-PGPUB;	2002/03/22 10.01
			density) same (more more) same (meat hears (transfer \$5 conducts 1))	EPO; JPO;	
				DERWENT,	
				IBM_TDB	
		1	1993-269706.NRAN.	DERWENT	2002/05/22 14:45
-		13197	(fiber fibre) same (heat near8 (transfer\$5 conduct\$7 dissipat\$5))	USPAT;	2002/05/22 15:57
· -		1,1177	(from from) same (from from curio (transfer b) conductor dissipatory)	US-PGPUB;	
			ı	ЕРО, ЈРО,	
				DERWENT,	
				IBM_TDB	ļ
i -	i	25	((fiber fibre) same (heat near8 (transfer\$5 conduct\$7 dissipat\$5)))	USPAT;	2002/05/22 15:58
	į		same (hot near3 side)	US-PGPUB:	1
	!		,	EPO; JPO;	
	İ			DERWENT,	1
1	-			IBM_TDB	
ļ <u>-</u>	į	4	(hot near2 side) same (concentration amount density) same (fiber fibre)	USPAT,	2002/05/22 16:09
	- 1		same (heat near8 (transfer\$5 conduct\$7 dissipat\$5))	US-PGPUB;	
	1		1	ЕРО; ЛРО;	I .
1				DERWENT;	i
	1		! 	IBM_TDB	1
-		26	"5288537"	USPAT;	2002/05/22 16:10
:	-			US-PGPUB;	
			·	EPO; JPO;	1
1			İ	DERWENT;	
Ī				IBM_TDB	
-		482	(428/120,64.1 192/12r 188/251r).ccls.	USPAT;	2002/05/22 16:56
	-			US-PGPUB;	Ī
				ЕРО; ЛРО;	
Ť				DERWENT;).
				IBM_TDB	2002/05/22 17:01
-	1	53	((428/120,64.1 192/12r 188/251r).ccls.) and ((heat thermal\$5) near6	USPAT,	2002/03/22 17:01
			(conduct\$9 transfer\$5 dissipat\$9))	US-PGPUB;	
				EPO; JPO; DERWENT;	1
				BERWENT,	-
	1	,	(and a man 2 through some (our how man 2 (the titra))	USPAT:	2002/05/24 15:23
	1	O	(copper near3 thread) same (carbon near3 (fiber fibre))	US-PGPUB;	
į				EPO; JPO;	-^
				DERWENT:	
				IBM_TDB	
:	1	220	copper same (woven weaving weave) same (carbon near3 (fiber fibre))	USPAT;	2002/05/24 15:24
i -		320	copper same (woven weaving weave) same (earborn hear) (note note))	US-PGPUB,	
				[†] EPO; JPO;	ī
-				DERWENT;	
				IBM_TDB	
		159	copper with (woven weaving weave) with (carbon near3 (fiber fibre))	USPAT;	2002/05/24 15:25
: -		137	copper man (moren meaning means) man (ember means (most more))	US-PGPUB;	
				ЕРО; ЛРО;	1
	*			DERWENT,	1
				IBM_TDB	b
	<u> </u>				

1	0	copper adj thread with (woven weaving weave) with (carbon near3 (fiber fibre))	USPAT; US-PGPUB;	2002/05/24 15:26
		(4.1.1.1.1.1.1)	EPO, JPO, DERWENT:	
			IBM_TDB	
· .	1.3	copper adj thread same (woven weaving weave) same (carbon near3	USPĀT;	2002/05/24 15:40
	•	(fiber fibre))	US-PGPUB,	
Ť.		()	EPO; JPO;	
			DERWENT,	
			IBM_TDB	
	662	(woven weaving weave) and aramid\$4 and carbon and (fiber fibre) and	USPAT;	2002/05/24 15:54
1		(clutch\$5 brake friction\$5)	US-PGPUB;	
			EPO; JPO:	
			DERWENT,	
		1 100 (1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	IBM_TDB	2002/05/24 15 44
-	184	((woven weaving weave) and aramid\$4 and carbon and (fiber fibre) and	USPAT; US-PGPUB;	2002/05/24 15.44
		' (clutch\$5 brake friction\$5)) and copper	EPO; JPO;	
			DERWENT;	
į.			IBM_TDB	1
	164	(((woven weaving weave) and aramid\$4 and carbon and (fiber fibre)	USPAT;	2002/05/24 15:49
ļ	104	and (clutch\$5 brake friction\$5)) and copper) and heat	US-PGPUB;	
i I		disconditional interest of the control of the contr	EPO, JPO,	
1			DERWENT,	1
1			IBM_TDB	
- 1	72	(((woven weaving weave) and aramid\$4 and carbon and (fiber fibre)	USPAT;	2002/05/24 15:51
		and (clutch\$5 brake friction\$5)) and copper) and ((thermal heat) near6	US-PGPUB;	
-		(conductiv\$8 transfer\$8))	ЕРО; ЛРО;	6
<u>.</u>			DERWENT;	
			IBM_TDB	-
. -	126	((woven weaving weave) same aramid\$4 same carbon same (fiber	USPAT:	2002/05/24 16:03
		fibre)) and (clutch\$5 brake friction\$5)	US-PGPUB;	
í			EPO; JPO;	1
			DERWENT: BM_TDB	ę.
Ī	,	((woven weaving weave) same aramid\$4 same carbon same (fiber fibre)	USPAT;	2002/05/24 15:57
• -	6	same copper) and (clutch\$5 brake friction\$5)	US-PGPUB;	2002/03/24 13:37
8		same copper) and (criticing) brake methoday)	EPO; JPO;	
			DERWENT;	
1			IBM_TDB	
î -]	1997-311643.NRAN.	DERWENT	2002/05/24 16:01
!-	41	(((woven weaving weave) same aramid\$4 same carbon same (fiber	USPAT;	2002/05/24 16:06
Ī		fibre)) and (clutch\$5 brake friction\$5)) and copper	US-PGPUB;	1
		,, ,	EPO, JPO,	
			DERWENT;	1
			IBM_TDB	Langamera
-	35	((((woven weaving weave) same aramid\$4 same carbon same (fiber	USPAT;	2002/05/24 16:06
		fibre)) and (clutch\$5 brake friction\$5)) and copper) not (((woven	US-PGPUB;	
		weaving weave) same aramid\$4 same carbon same (fiber libre) same	± EPO; JPO;	
1		copper) and (clutch\$5 brake friction\$5))	DERWENT: BM TDB	
		· · · · · · · · · · · · · · · · · · ·	TDM_IDD	i